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Smart Access Solutions

MERCURY SMART ACCESS

3460 Fast'R Series Overview

The 3460 Fast'R Series of network managed enterprise modems offers the performance and reliability you've come to expect from Motorola, a worldwide leader in high speed analog technology. Fully supporting the V.34 standard, Fast'R modems offer optimum performance over any telephone circuit with line speeds up to 33.6Kbps and actual throughput up to 230.4Kbps.

The 3460 Fast'R Series of networking modems is ideal for corporate environments — from backbone links to small/home office. Support for both asynchronous and synchronous operation over dial and two or four wire leased lines means the 3460 Fast'R Series modems can be used anywhere, anytime - for a variety of applications. Whether your network needs are connectivity for SNA connections, link back-up, LAN-to-LAN connections, file transfers or remote LAN access, 3460 Fast'R modems have the flexibility to fit. Manufactured to meet Motorola's stringent quality standards, these products offer maximum uptime and reliability.

Motorola's own Fast'RVu configuration software ensures rapid and efficient network deployment. Fast'RVu allows you to configure, monitor and test both local and remote modems over a separate network control channel - that means no interruptions in data transmissions.

A new look for the Motorola corporate modems, the Fast'R Plus standalone offers LCD front panel for your interactive fingertip control of option selections and modem configuration, while the Fast'R standalone and AccessWay nest cards offer front panel Speedbar LEDs which illuminate to display at-a-glance configured line rate and actual data rates.

Based on Motorola's award winning 326XFast V.34 Series of modems, the 3460 Fast'R Series is feature rich. In addition to basic modem features, such as ITU V.34 compliance, Hayes AT and V.25bis command support, the Motorola 3460 Fast'R series offers:

- Synchronous and asynchronous operation
- Fast'RVu configuration, command and test software (via world wide web)
- Software Download functionality with FLASH memory
- Extensive security features including callback with password and quiet answer
- Fast'R PLUS standalone with 16-character LCD front panel with pushbuttons
- Fast'R Standalone and stackable units with Speedbars
- Dual 2-wire modem cards for 32 modems per nest or single 4-wire modem cards for 16 modems per nest
- 3460 daughter card for use with Motorola Vanguard® Series products
  See your Motorola Representative for country availability
- Preset options for out of the box operation and optional user definable configurations
- Automatic busyout on DTR and DTR activated dialing

Combine all these features with Motorola's reputation for quality and reliability and you have a winning solution for all of your networking modem needs!

Performance, Reliability and Management Capabilities for Today's Enterprise Networks

Fast'RVu

The 3460's Fast'RVu Windows-based PC application is an industry first. Providing easy configuration and test with pull-down menus, graphic displays for device and line status, and the ability to save and copy configurations from one modem to many or to a PC file. This means network implementation has never been easier! Plus, use Fast'RVu to upgrade your 3460 modem's software to the latest release. Fast'RVu will automatically download software upgrades to one or multiple modems in release 2.0 or greater. Release 3.0 will also include automatic dial restoral functionality. Fast'RVu operates without disrupting your data - by using a management port on each 3460 Fast'R modem or 3460 AccessWay nest.

Full Network Management

SNMP Network manageability, using the Motorola 9000-UX or 9000-PC, is a standard feature in the 3460 Fast'R. Each Fast'R modem is secondary channel management ready to provide complete end-to-end non-data disruptive management for alarm and event reporting and tracking. Our advanced management application provides efficient dial pool management allowing you to optimize your network with accurate utilization/availability reporting. Combining the 9000 Open Management System (OMS) with the 3460 Fast'R networking modems gives you control of your network facilitating proactive maintenance for maximum uptime.

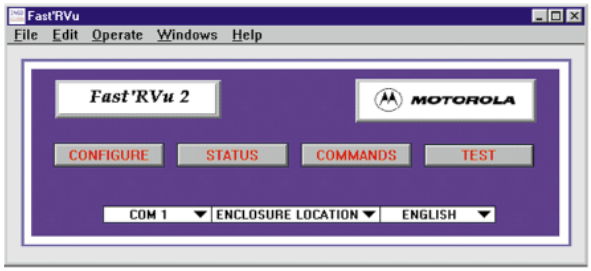
Standalone, Stacked, Nested or Daughter Card for Vanguard Products

To meet your network requirements and space constraints, the 3460 Fast'R modems are available as standalone units and as single or dual modem cards for installation in the 3460's AccessWay enclosure. 3460 Fast'R PLUS standalone modems offer LCD display, and 3460 Fast'R standalone modems feature at-a-glance operational status with six LEDs for EIA status and Motorola's innovative speed bars showing line rate and throughput in real time. With the 3460 StackSix stacking kit, standalone modems are easily stackable up to six units high. The StackSix kit includes Fast'RVu PC configuration software and all necessary stacking clips and cables for connecting up to six standalone modems. Eliminate clutter at smaller sites with Motorola's 3460 Fast'R and StackSix kit.

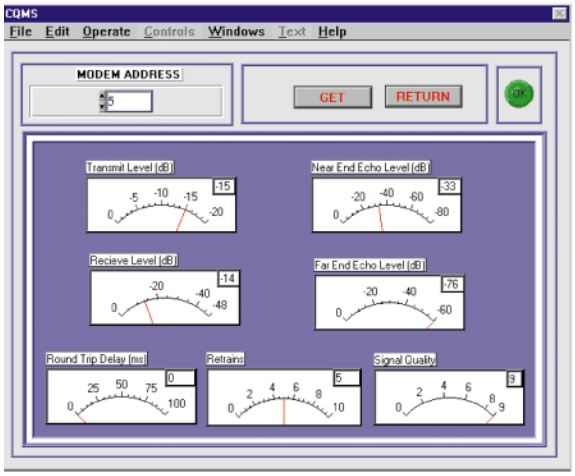
The 3460's AccessWay rack provides space savings for larger network environments and is capable of housing up to 16 dual 2-wire modem cards (32 modems total) or 16 single 4-wire modem cards (16 modems total)in a 7 inch high nest enclosure. The 3460 AccessWay offers hot swap of nest cards, with optional integral, automatic busy out. This maximizes total network uptime by eliminating the need to power down an entire nest to service each modem pair, while busy out ensures incoming calls are directed to active devices. For those times when a simple power cycle of a card is needed, use Fast'RVu to reset one or more modems. With Fast'RVu and the 3460 AccessWay, you'll never have to power down an entire nest for simple maintenance.

The 3460 AccessWay Nest is available with switch selectable 100V, 115V, 220V, 240V AC or redundant -48V DC power supplies. Active AC components are distributed across each nest card for optimum power supply reliability. Telco line termination options are available via RJ11 connectors or by mass termination, simplifying cabling at central sites. The 3460 modem daughter card expands the capabilities of the 3460 Fast'R product introducing V.34 modem capability into the Vanguard® Series FRAD product line.

3460 FastR'Vu PC Screen Menu



3460 FastR'Vu



Features and Benefits

Compliance to Industry Standards
Ensures interoperability and compatibility.

Complies to Relevant Safety & Emissions Standards
Available world wide.

Flash Memory
Easy upgrade of 3460 Fast'R software releases.

Fast'RVu Windows based PC Application Software
Simple and quick installation of central sites - in just minutes !

Pull-down, menu driven GUI Interface for configuration, test and real time modem status and line quality of both local and remote modems saves valuable time and costly mistakes - anyone can easily set-up and monitor the 3460 Fast'R modems.

9000 UX or PC SNMP management
Full management including extensive user programmable alarms on a wide variety of operational and performance parameters. Reports and statistics on faults and utilization, facilitates optimization of dial pool resources to maximize user satisfaction.

Fast'R PLUS LCD Front Panel
The 16-character display and four pushbuttons let you view and change configuration parameters. It also allows you to initiate tests and view status.

Fast'R Speed bars
At-a-glance status shows modem performance. Provides configured and actual line rate and throughput. The modem daughter card has two LEDs on the rear panel.

Motorola Adaptive Rate System (ARS) Automode, Autobaud
Years of Motorola modem experience have produced one of the industry's best algorithms for selecting the optimum modulation scheme, the highest DTE rates, and automatically falling forward and back data rates to ensure the highest error free data throughput

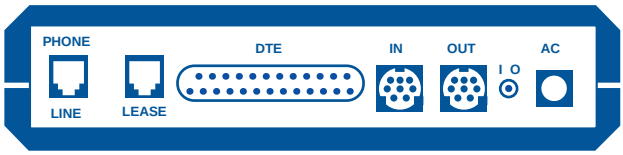
Extensive security features
Controls unauthorized access - freezes out hackers

Integral Circuit Quality Monitoring System (CQMS)
Real time line statistics for pro-active network management

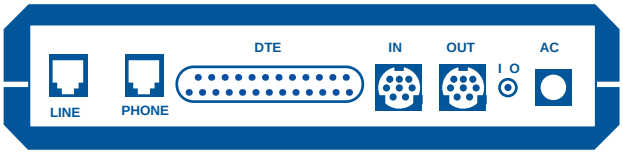
V.54 diagnostic test suite
Industry standard tests isolate any degradation in network performance

Motorola Customer Support
Service and support worldwide when you need it

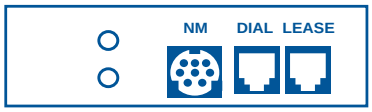
3460 & 3460 plus 2/4-wire Standalone



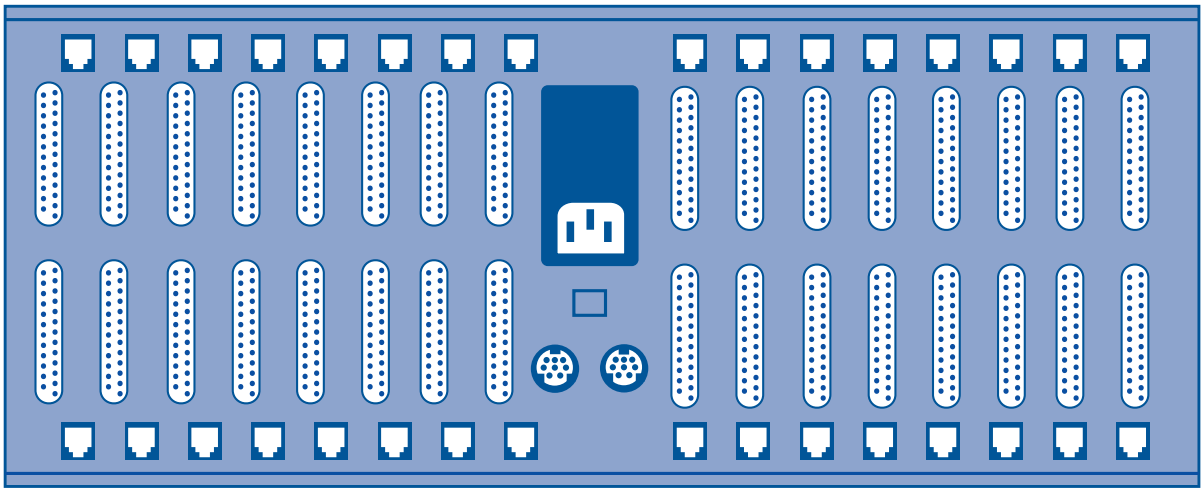
3460 & 3460 plus 2-wire Standalone



3460 2/4 wire Daughter Card



3460 Accessway Enclosure



Specifications

Transmission Rates:
- 33.6, 31.2, 28.8, 26.4, 24.0, 21.6, 19.2,16.8, 14.4, 12.0, 9.6, 7.2, 3.8, 2.4, 1.2Kbps (+0.01% sync; +/-2.5% asynch). 300 bps in asynch only.

Operating Modes
- V.34, V.32bis, V.32, V.23, V.22bis, V.22,V.21, Bell 212, Bell 103

Calling Interfaces
- Hayes AT and ITU-T V.25 bis (synchronous only)

Line Types
- 2-wire dial line or 2/4-wire leased line

Error Correction & Data Compression
- V.42, LAP-M & MNP 4; V.42bis & MNP 5

Transmitter Section
- Output level tolerance: +/- 1.0 dB
- Output level: country dependent
- Timing: Selectable internal, external, loopback

Environment
- Operating temperature: +32° to 122°F (0° to 50°C)
- Storage temperature: -40° to 158°F (-40° to +70°C)
- Relative humidity: 0 to 95% non-condensing

Service and Ordering

Motorola and its partners offer a full range of Network Maintenance, Systems Integration, Software Subscription Services, and Network Operations Services. Services may differ from country to country. Contact your local Motorola representative for service offering and warranty details at the telephone number listed below or access our web site referenced below.

Certification Compliance/Approvals
- Safety: UL 1950, CSA 950, IEC 950, EN60950
- Telecom: Country compliance as required, including FCC Part 68 (U.S.), IC-CS-03 (Canada), JATE
- EMC Compliance:
  Standalone - FCC Part 15, Class B; CISPR 22 and EN 55022, Class B; AS 3548, Class B; EN 50082-1
  Nest and Dual Modem Cards - FCC Part 15, Class A; CISPR 22 and EN 55022, Class A; AS 3548, Class A; EN 50082-1
- CE marked for compliance to the EU LVD, EMC , and TTE directive

Physical
- AccessWay for 3460 Fast'R
  - Size (H x W x D): 7"x 19"x10.5" (cm: 17.78 x 48.26 x 26.7)
  - Power: 100/120/220/240 VAC nominal (switch-selectable),
  - Frequency: 50/60 Hz or -48V DC nominal (redundant)
- 3460 Fast'R PLUS Standalone size (H x W x D): 1.75" x 6.75" x 9.6" (cm: 4.45 x 17.15 x 24.38)
- 3460 Fast'R Standalone size (H x W x D): 1.75" x 6.75" x 9.6" (cm: 4.45 x 17.15 x 24.38)
- 3460 Fast'R Nest Cards size (H x W x D): 0.9" x 6.75" x 9.6" (cm:2.29 x 17.15 x 24.38)
- 3460 Fast'R Vanguard Daughter Card size (H x W x D): 0.87" x 2.95" x 8.86" (cm:2.20 x 7.50 x 22.50)

Power Requirements
Standalone: 9V AC, 50/60 Hz, 800 mA
Nest: 100/120/200/240V AC, 50/60 Hz, 1.2/1.0/0.6/0.5 A

Training

Motorola ING offers comprehensive training classes on networking products. For a complete course catalog, visit Motorola's web site referenced below.

A 3460 V.34 daughter card is now available for use with Motorola Vanguard® Series products

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